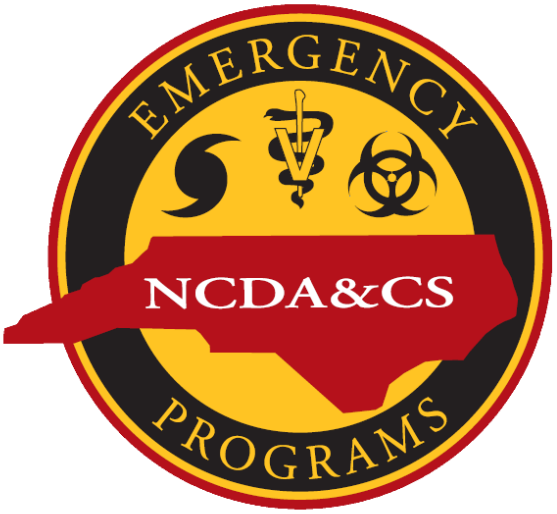
Emergency Programs Division
Accomplishment Report 2014



NC Department of Agriculture & Consumer Services
Steve Troxler, Commissioner

For the NCDA&CS Emergency Programs Division, 2014 began with an internal focus on how to be better prepared as a Division to work across lines with sister Divisions and across state borders with other agencies to improve capacity in the event of natural or radiological disasters or a food outbreak. Internally, the Division identified an Incident Management Team and invited the Food and Drug Protection Division to join in team training specifically to build capability for managing a large event affecting the food supply. North Carolina hosted a training with the USDA APHIS National Veterinary Stockpile team to improve collaboration during disease outbreaks. Early in the summer, with news about the West African Ebola outbreak and the consequence of managing companion animals for infected individuals coming to NC, Emergency Programs began internal discussions while working closely with NC Division of Public Health on a strategy for responding to a mission of this type. Emergency Programs Division worked collaboratively with the National Alliance for State Animal and Agricultural Emergency Programs (NASAAEP) and the National Animal Rescue and Sheltering Coalition to host their annual meeting and to co-join venues with the 11th Annual One Medicine Symposium. Staff inspected animal contact exhibits at sanctioned agricultural fairs for compliance with Aedin's Law, while also continuing their educational efforts with fair managers and exhibitors regarding non-contact animal exhibits. Staff participated on a number of teams and task forces working with federal, state, county, local, and industry partners on a variety of one-health veterinary and response and recovery issues.

2014 HIGHLIGHTS

- Agricultural All Hazards Incident Management Team (IMT) and Agricultural Emergency Response Team (AERT) Development
- NC Foreign Animal Disease (FAD) and Zoo Coordination Project
- Hosted National Alliance for State Animal and Agricultural Emergency Programs
- A One Medicine Approach to Disasters and Diseases

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INCIDENTS & EVENTS

1. Natural Disaster Preparedness: Each year the Emergency Programs Division (EP) prepares the North Carolina Department of Agriculture & Consumer Services for the hurricane season with several activities that improve readiness. In 2014, these activities included: organizing the Agriculture Emergency Operations Center activation exercise; participating in monthly Web-based Emergency Operations Center trainings with state and local jurisdictions; updating the State Emergency Operations Plan with agricultural information; participating in statewide SERVNC and NC Emergency Management disaster exercises including a statewide hurricane exercise and Agricultural Emergency Response Team training with Civil Air Patrol personnel; educating partners on preparedness activities such as newsletters, EP website, updates to divisions and partners; and more.

TRAINING, EDUCATION & OUTREACH

2. Training of NC Veterinary Response Corps (NCVRC): EP staff has continued to train veterinarians, veterinary technicians, students, and other animal care providers throughout the state as NCVRC responders to work as part of our State Agricultural Response Team. Licensed veterinarians and technicians were trained at the NC Veterinary Conference in November. Students in their final year of the veterinary technician program at Asheville Buncombe Community College were trained in December. At the NCVRC trainings, EP personnel have trained participants on foreign animal disease response plans, biosecurity protocols, the practice of donning and doffing personal protective equipment, sheltering protocols, emergency management concepts and operations, and public health topics.

An EP veterinarian provided training to third-year veterinary students enabling them to graduate as credentialed disaster-response personnel. The NC State University College of Veterinary Medicine Disaster Response Credentialing Program was the first of its kind in the nation and serves as a template for other vet schools. As part of their required curriculum, students are trained in foreign animal disease response, Incident Command System, natural disasters including hurricane response, biosecurity, personal protective equipment and hazardous materials awareness. After completing the training and registering in SERVNC, each student will be a credentialed responder in the NCVRC. An additional training was added to the program in the use of the Companion Animal Mobile Equipment Trailers (CAMETs) for local and regional sheltering response. In response to presentations by EP veterinarians at national meetings, there are currently efforts underway to replicate this program across the nation at other vet schools.

3. Annual AgEOC Activation Exercise: On August 12, 2014 the Emergency Programs Division hosted the NCDA&CS annual AgEOC activation exercise, bringing together representatives from NCDA&CS, USDA, local and state emergency management, NC Civil Air Patrol, NC-SART, and NCVRC to participate in an activation drill in the Agriculture Emergency Operation Center (AgEOC) in Raleigh. This year's exercise focused on the need to prepare all agriculture response partners in a multi –hazard approach utilizing Incident Command System principles and partner integration in response.

The exercise scenario for this year focused on hurricane preparedness and response in preparation for anticipated hurricane activity for 2014, as these storms typically provide challenges to the agricultural infrastructure of NC and require a wide range of expertise, knowledge, and cooperation to protect residents, their animals, and property. The scenario, a fictional Hurricane, Tiawana, a category 3 storm, approached NC from the Atlantic taking aim at the central western portion of the state roughly following I-77 through the state and affecting a wide range of jurisdictions and the adjacent agricultural infrastructure.

Exercise participants were reminded of the need for comprehensive coordinated efforts in response to multi-hazard events with an operational period briefing lead by the NCDA&CS Incident Management Team for a review of the Incident Command System (ICS) operational briefing format as well as specific storm related information and an Incident Action Plan presentation. Major Storm impacts from Hurricane Tiawana lead to the activation of NCDA&CS AgEOC and integration of partner assets and capabilities into the states response efforts as keys to protecting NC residents and their agriculture interests. NCDA&CS response partners gave brief presentations in the exercise including: AERTs - NCDA&CS's Agriculture Emergency

Response Teams, Civil Air Patrol (CAP) response and cadet capability integration, NCEM Search and Rescue, and an overview of NCDA&CS divisional resources for response. Participants were also able to again be familiarized with the critical equipment and systems available in the AgEOC should an activation occur.

One of the critical components of any response is safety for all involved and is a priority for North Carolina's governmental agencies in 2014. NCDA&CS safety director Doug Gaylord provided a presentation on response safety that highlighted individual responsibility for safety of all responders and NCDA&CS commitment to safety at all times. Exercise participants were also briefed by NOAA meteorologist Brian Figurski from the National Weather Service's Raleigh office on the anticipated hurricane forecast for 2014 and some of the climatological models that are used to forecast and predict the development of tropical systems. The didactic portion of the exercise concluded with a presentation by Dr. Anna Allen of the NCDA&CS continuity of operations plan (COOP) including recent revisions and updates. Following lunch for participants provided by NCSART the NCDA&CS incident management team and select members of the Emergency Programs and NCDA&CS ISS staff tested the off-site activation portion of the NCDA&CS COOP Plan.

4. Training of NC Wildlife Resource Commission: EP personnel support training of NC Wildlife Resources Commission's Wildlife Damage Control Agents though presentations covering euthanasia and restraint. Trainings are conducted several times per year.

5. ICS Training: In 2014, EP & Food & Drug division staff attended Advanced Incident Command System (I-305 incident management team training) training in Richmond, Virginia taught by instructors from the National Fire Administration to enhance NCDA&CS departmental readiness for disaster and emergency response. Additionally EP conducted ICS 100/200 training for NCDA&CS employees in November for the Agronomic Division and other staff members in Raleigh. EP will continue to conduct ICS trainings at regular intervals to enhance departmental preparedness efforts and as part of the NIMS certification process.

6. County and State Fairs: Aedin's Law regulates the permitting of contact animal exhibits at sanctioned agricultural fairs in North Carolina. The rules outlining the implementation of this law went into effect at the beginning of the 2006 fair season. In 2014, EP staff made site visits or phone consultations to many of the fairs prior to fair season to discuss the permitting process, answer questions, and address issues related to Aedin's Law compliance. There continue to be fewer questions or issues each year as a result of the work staff has done educating fair managers and exhibitors. However, a concerted effort is still needed to ensure that challenges associated with new exhibits at a fair are addressed and that exhibitors new to North Carolina are aware of the rules and regulations. Attending the NC Fair Convention and State Fair Livestock Superintendents' meeting are two venues for continued interaction with fair managers and exhibitors.

The North Carolina Administrative Code that outlines the implementation of Aedin's Law (02 NCAC 52K) underwent periodic review and re-adoption in 2014 as required under the 2013 Regulatory Reform Act. Several rule changes were also proposed and adopted that broaden the list of high risk populations, enhance the opportunity for photographic and educational exhibits, and reduce the risk of disease transmission to cows that are part of milking booths.

7. Farm to School Recall Exercise Planning: The NC Farm to School Program, coordinated by NCDA&CS' Food Distribution and Marketing Divisions, supplies school cafeterias across the state with locally grown produce. EP staff worked with staff from NCDA&CS' Food Distribution, Food and Drug Protection and Marketing Divisions as well as the Franklin County School System to develop a stakeholders' meeting focused on protocols in place to respond if a produce recall were associated with the NC Farm to School Program. Partners came together in July to learn more about each other's roles and responsibilities, communication protocols, and recent changes to food safety regulations. The group will be planning for a follow up exercise in 2015.

8. NC Veterinary Conference: The NCVC Public Practice Committee, chaired by an EP veterinarian, prepared the 2014 agenda for the Public Practice Track. Topics included Veterinary Accreditation CE and Regulatory Updates, Animals in Disaster Response, Humane Slaughter, EHV-1 Outbreak Overview, Rabies Updates, Biosecurity for Animal Response, and the Use of PPE Audience Participation Workshop. The 2014 NCVC Public Practice Track was also a NCVRC training opportunity during which participants were encouraged to register in SERVNC, the statewide volunteer database.

9. EP Education and Outreach: As part of EP's outreach and education, EP hosted information booths at several venues to inform attendees about emergency preparedness and response related to agriculture. Events included the Southern Farm Show in February and Stormfest in June. The CAMETs were also displayed at the National Weather Service & Natural History Museum's Stormfest in June. A CAMET was also displayed at the NCSU/CVM's annual open house.

10. Army Civil Affairs Unit Training: EP staff conducted training events with Army Veterinary Units & Emergency Planners preparing for disaster sheltering of Army personnel & family members. It also coordinated mutual disaster support to local EM and law enforcement for their animal support issues. This allowed collaboration with the US Army's Public Health Veterinarian and support staff at bases across VA and NC for the district.

11. Sheltering/CAMET Training: EP staff conducted two CAMET trainings for the Piedmont Emergency Animal Response Team (PEART), a multi-county CART partnership, one in Rockingham County (May 2014), one in Winston Salem NC (June 2014), and a CAMET demo at the western NC public health preparedness coordinators meeting in July. Additionally, EP staff conducted a day long CAMET workshop for in Haywood County for western NC counties in November of 2014. The trainings were conducted to cover animal sheltering options in disasters and utilization of the CAMET assets. Training included display and hands on set-up with the supplies included in the CAMET as well as utilization of CAMET assets using live animals to demonstrate sheltering processes.

EP also had the opportunity to present at the June 10, 2014 NCEM Forum on CAMET and animal sheltering plans for NC including the display of and walk-through of a CAMET trailer following the formal presentation which highlighted partnership development and maintenance. An EP Veterinarian also participated in NCSU CVM's annual Open House. At this event they had a CAMET present and answered questions and taught participants the basics of using the CAMET trailer. They also showed attendees where the closest CAMET to their home was and how easily they could be involved.

12. 2014 One Medicine Symposium: The Eleventh One Medicine Symposium, Disasters and Diseases: A One Medicine Approach to Current Challenges was held December 10-11, 2014. The event was hosted by the NC Department of Health and Human Services, Division of Public Health and NCDA&CS EP Division with support from NC State University College of Veterinary Medicine, UNC Gillings School of Global Public Health, and USDA APHIS Veterinary Services. The program featured a broad range of topics related to disasters and emerging and zoonotic diseases. These are the types of challenges that require professionals in many disciplines to partner together and work outside of their routine, everyday duties and their comfort zones. The 2014 program featured both traditional lectures and interactive audience discussion guided by experienced facilitators to encourage participants to consider how they might approach these challenges in their own professions and communities. The symposium is designed to provide professionals from a variety of backgrounds with current information and take-home tools to improve awareness and understanding of the topics from a One Medicine perspective, promote collaboration across professional disciplines, enhance preparedness for natural or man-made disasters, infectious disease outbreaks, and other challenges affecting human and animal health, and to foster objective, intellectual discussion across disciplines. This year's program was held in conjunction with the National Alliance of State Animal and Agricultural Emergency Programs (NASAAEP) Annual Summit. With over 300 participants, audience members included physicians, nurses, veterinarians, veterinary technicians, agriculture professionals, public health professionals, animal health and animal welfare professionals, environmental health specialists, educators, and others. Continuing Education credits were offered through the Centers for Disease Control and Prevention and NC state boards for physicians, nurses, veterinarians, veterinary technicians, sanitarians, and other professionals.

13. Ebola/Public Health Coordination: EP staff worked with Veterinary Division staff, NC Division of Public Health, and NC Emergency Management on a strategy in the event a companion animal in NC was exposed to a person with Ebola. As part of the effort, EP staff worked with Veterinary Division staff to develop a Departmental strategy including personal protective equipment (PPE) requirements for animal caretakers, training protocol for donning and doffing PPE, structure of an incident management team (IMT), and adaptation of the American Veterinary Medical Association's (AVMA) companion animal response guidelines to North Carolina. Meetings with NC Division of Public Health and NC Emergency Management ensured that the planning effort was coordinated across agencies with regards to communication, technical support, and logistical support.

14. NC Eastern District Public Health Association Conference: EP presented to the NC EDPHA conference on the use of the incident command system in disaster events to overcome some of the response challenges associated with rapidly evolving and cascading events. The presentation also focused on the necessity of a One Medicine approach for public and animal health before, during, and after event impacts.

15. Rapid Response Team Training: EP staff participated in a joint RRT training with NCDA&CS Food and Drug Protection Division focused on Fresh Produce Safety. The training included a full day of background and response instruction at NC State University on October 1 followed by a full day, scenario-based, farm exercise conducted at the Salisbury Research Station on October 2.

EXERCISES

16. Fixed Nuclear Plant Exercises: EP staff supported Nuclear Plant/Radiation Planning training for county emergency managers at four locations and dates during the year. EP staff supported the SEOC and local Task Forces for two Emergency Planning Zone (Hostile Action Based) Exercises during the year and support four Operating Task Forces associated with the major nuclear plants in or close to NC borders (Harris, Catawba, Brunswick, McGuire).
On July 22-23, 2014, EP staff participated in the Brunswick Nuclear Power Plant Hostile Shooter Exercise. EP staff provided guidance for agriculture concerns in preparation for and during the exercise.

EP Staff participated in a one day Ingestion Pathway Zone (IPZ) exercise in Elizabeth City, NC on June 24, 2014. This workshop was sponsored by NCEM and covered the basics of radiation fallout, understanding and reading radiac meters, and the possible implications to human and animal health.

On March 18, 2014 EP staff participated in the Catawba Nuclear Power Plant Exposure Pathway Zone exercise conducted at the Catawba Nuclear Station in South Carolina. EP staff provided guidance for agricultural infrastructure issues during the FEMA and Nuclear Regulatory Commission federally graded portion of the exercise as members of the response team assembled at the NCEM Western Branch Regional Coordination Center in Hickory. The main agricultural focus for the event was on protection of animals and feed supplies in the exposure path zone in accordance with current plans and procedures if a nuclear release were to occur.

17. COOP Exercises: EP conducted and participated in two COOP exercises in conjunction with the AgEOC Activation. Immediately following the AgEOC Activation program, EP staff traveled to an Alternate Site to set up a mock EOC. This site is identified as the nearest Alternate Site in the NCDA&CS COOP should the Main Agriculture building be uninhabitable. EP staff tested communications and discussed how the off-site EOC would look and function during an incident or event, made recommendations for changes and additions to the COOP, and discussed ideas for future COOP exercises. In addition, the NCDA&CS ITS group worked with ISS staff to test their off-site server capability at an Alternate Location.

18. Local Exercises: EP staff participated in numerous local exercises and planning efforts including: Quake 2.0, a regional exercise incorporating pet sheltering and large animal rescue components; remote management of disaster events through web-based technology; contingency planning for agricultural impacts from an anhydrous ammonia leak; and Local Emergency Planning Committee (LEPC) simulated response to chemical spill at a rail yard.

TEAMS, TASK FORCES, WORKGROUPS & COMMITTEES

19. Vector-borne Disease Workgroup: EP staff participated in quarterly meetings of this workgroup, organized by the Division of Public Health, to discuss current trends in vector-borne diseases, such as West Nile Virus, Eastern equine encephalitis, Rocky Mountain spotted fever, Lyme disease, and others. Other participants include the NC Division of Public Health, NC Department of Environment and Natural Resources, NCDA&CS, NCSU CVM, NC Wildlife Resources Commission, and others.

20. Public Health Preparedness and Response: The PHP&R branch of the NC Division of Public Health has four regional offices across the state which provide support for citizens and public health officials in their designated geographical regions; Eastern, Central, City Readiness Initiative, and Western. In 2014, EP staff members engaged with the PHP&R regional office teams and preparedness coordinators by participating in monthly or quarterly meetings and trainings. EP staff presented an overview of Threat and Hazard Identification and Risk Assessment and the interface between agriculture and public health during disasters at the NC Preparedness Conference Pre-Conference Workshop in Atlantic Beach, NC on May 28, 2014.

21. NC Food Safety and Defense Task Force: EP staff members actively participated on this task force. The FSDTF meets bimonthly and is a multi-agency group consisting of representatives from multiple NCDA&CS divisions, NC DHHS, Division of Public Health, NC DENR, NCEM, USDA, FBI, FDA, NCSU, and food industry representatives. EP staff assisted with website updates for the task force as well as photography at the annual Food Safety and Defense Conference in May 2014.

22. Emerging & Zoonotic Disease Workgroup: EP participates on this NC DPH-organized working group. Participants include: NC DPH, NCDA&CS, NC WRC, USDA Wildlife Services, NCSU CVM, and NC Animal Rabies Control Association. This group meets quarterly to discuss zoonotic disease concerns in North Carolina.

23. State Emergency Response Team: The emergency operations center liaison is a member of the SERT and is the on-call person when the SERT is activated, or for after-hours incidents that affect NCDA&CS personnel. In addition, this person informs the NCDA&CS Executive Staff and Division Directors of on-going disaster and emergency issues. The SERT liaison is the point of contact for the NCDA&CS at the State EOC during events and exercises, and for emergency management issues affecting the Food and Ag Sector or Emergency Support Function 11.

24. State Emergency Response Commission: The EP director is a SERC commissioner appointed to serve in positions within the SERC subcommittee structure. One position involves serving on the Regional Response Team Advisory Committee. These regional teams respond to hazardous material response requests within seven geographical regions. Another appointment is co-chair for Homeland Security Domestic Preparedness Regions' State Committee. The regions have become a focal group for identifying regional vulnerabilities through county risk assessments which will be used to determine the need for homeland security funding to address preparedness and response measures. The director serves the Recovery and Protection Committees within the SERC.

25. NCEM State Training and Exercise Committee: EP represented NCDA&CS at all meetings of the NCEM State Training and Exercise Committee in 2014 to coordinate preparedness objectives across North Carolina. This committee allows NCDA&CS to integrate and coordinate departmental exercise objectives and training goals with multiple agencies including NCEM, NC DHHS, DPH, NC OEMS, NC DOT, University of North Carolina system schools, Volunteer Organizations Active in Disasters (VOAD), and the NC National Guard for the betterment of statewide exercise and training planning.

26. NC Information Sharing and Analysis Center: The EP director serves as an appointed member of ISAAC Governance Board and has brought the food and agriculture perspective to this group. A staff veterinarian attends when an alternate is needed for these bi-monthly meetings. ISAAC serves as the focal point for collection, analysis, and dissemination of information on possible terrorist and criminal threats against North Carolina. Law enforcement agencies from across the state submit and exchange information on homeland security and gang activities. Experts at ISAAC will evaluate that information and share it with other appropriate agencies to follow up on these tips. Additional experts from NCDA&CS are included in specific discussions involving the ISAAC as needed.

27. NC Domestic Preparedness Regions: The Domestic Preparedness Regions were structured by State NCEM to develop and expand regional prevention, preparedness, response, and recovery capabilities for all hazards, both man-made and natural. The DPRs coordinate interoperability needs and training within their regions. EP staff participate in their local DPR activities.

28. Military-Civilian Task Force for Emergency Response: EP staff participated in quarterly meetings with task forces at three of the four military bases in North Carolina which have organized them: Fort Bragg, Cherry Point, and Camp Lejeune. Additionally, an EP veterinarian conducted collaboration visits with the Army's regional public health veterinarian and base veterinary staff. EP staff participated with Fort Bragg MCTFER on FEMA Virtual Table Top Exercises two times during the year including covering topics from HAZMAT incidents to earthquakes and bioterrorism.

29. Chemical, Biological, Radiological, Nuclear, and Explosive Task Force: EP staff participates on the SERC's CBRNE task force. This task force meets quarterly to engage, evaluate and develop recommended solutions to issues related to the State's CBRNE response capabilities. Additionally, EP staff is on the CBRNE TF's Radiological Nuclear Detection Steering Committee working to develop recommendations to improve the State's capabilities and response guides for possible radiation events. Status and recommendations are brought before the SERC for further actions as needed.

30. National Alliance of State Animal and Agricultural Emergency Programs: An EP veterinarian represents North Carolina serving as a board member for NASAAEP. Additionally, an EP veterinarian serves as a state representative for NASAAEP. This group mirrors the National Emergency Managers Association and provides a forum for states to address national, regional, state, and local agriculture response and preparedness issues. EP provides two representatives to serve on the Best Practices Working Groups which include: Training Working Group, Disaster Veterinary Medicine Working Group, and Planning/Resource Management Working Group. NASAAEP continues to meet by conference call monthly, organize a summit

annually, and document and share work done throughout the year by the working groups through a resources library housed on the Alliance's website.

Emergency Programs hosted the NASAAEP National Summit in conjunction with the One Medicine Symposium in December in Durham, NC. The four-day Summit included speakers and participants from across the nation that represent Disaster and Disease Preparedness Response programs on local, state, and federal level.

31. Southern Agriculture and Animal Disaster Response Alliance: SAADRA is an interactive network, involving states at risk from similar natural and disease disasters, created to further planning, mitigation, preparedness, response and recovery efforts related to animals and agricultural infrastructure. Government veterinarians from Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Texas continue to collaborate on issues that affect all member states. An EP veterinarian was one of the charter members and still represents North Carolina in this collaborative group. In 2014, SAADRA states shared resource lists that show what resources could be shared during a large scale event using the Emergency Management Assistance Compact through state EM organizations. Emergency Programs personnel also represented North Carolina and SAADRA at Government Coordinating Council meetings to share its experiences in previous events and the impact on agriculture's infrastructure. Recommendations were made to DHS and USDA on behalf of agriculture to better funding and response resources provided to farmers during natural disasters.

32. State Agricultural Response Team/Companion Animal Response Teams: Emergency Programs is a key SART member and is engaged with county teams known as CARTs. SART members include state and local EM agencies, law enforcement agencies, NCSU CES, the NC Division of Public Health, the American Red Cross, local animal control, private veterinary practitioners, NC Farm Bureau, and NCSU CVM.

33. Poultry Disease Advisory Committee: The Poultry Disease Advisory Committee is an advisory group set up by the Commissioner of Agriculture with oversight by the State Veterinarian. Active members are selected by, and serve at the pleasure of, the Commissioner. The committee is kept apprised of poultry diseases affecting our industry through regular communication by the director of the Veterinary Division Animal Health Programs-Poultry and meets quarterly or as needed. The meetings provide a forum to learn about disease outbreak control and mitigation strategies used within the industry.

34. Secure Milk Supply: Foot and Mouth Disease, though not currently found in the United States, has the potential to greatly impact livestock and allied industries. Not only could it cause major losses of livestock, but the movement restrictions put into place to control spread of the disease could result in farmers not being able to get product to market. In the case of dairy farmers, whose product must reach the market in a short period of time, such movement restrictions could drive them out of business. The state veterinarians of Maryland, North Carolina, South Carolina, Tennessee, and Virginia work cooperatively to explore plans and procedures that could be agreed upon and implemented to keep milk moving to market in the event of an FMD outbreak. In 2013, Delaware and West Virginia joined this effort and New Jersey and Pennsylvania attended meetings. This effort is important to keeping our dairy farms, processors, and allied industries in business during an outbreak. EP staff continue to support this effort by participating in discussions of requirements and implementation of a regional SMS plan, including permitting needs.

35. Partnership for Food Protection, Interactive Information Technology Workgroup: Established in 2008 by the FDA, the purpose of the PFP is to bring federal, state, local, territorial, and tribal representatives with expertise in food, feed, epidemiology, laboratory, animal health, environment, and public health together to develop an Integrated Food Safety System. The importance of this work was underscored by the 2011 passage of the Food Safety Modernization Act. The IIT WG supports the other workgroups of the PFP on matters of technology and works with federal, state, and local representatives to assess technology offerings and needs and to provide guidance to food, feed, and dairy programs. An EP programmer represents North Carolina on this workgroup. Current workgroup projects this cycle include defining key data elements previously identified for food licensing and inspection systems to assist future system interoperability and data-sharing projects and setting up a table-top exercise to validate these key elements and their definitions.

36. Agricultural All Hazards Incident Management Team and Agricultural Emergency Response Team Development: The AERT model continued to develop and be refined throughout the year by focusing on development of a Field Operations Guide (FOG) and through partnerships. An initial FOG was created and has vetted to ensure accuracy and will be published within by summer 2015. NCDA&CS has partnered with volunteers within the department and with the Civil Air Patrol (CAP) in order to establish teams and for certification in task accomplishments. An AERT workshop was conducted in Lee County at the Cooperative Extension Service office on April 30, 2014. This workshop looked to glean information from Lee and surrounding counties on the understanding of AERT and how this model could be utilized in their county. AERT training was conducted in July 2014 at Jordan Lake where over 30 participants were trained in AERT tasks. A grant was secured from the Tobacco Trust Fund Commission and efforts are underway to broaden the AERT model.

37. Nuclear Plant Task Forces: EP staff are members of four nuclear plant task forces that meet monthly to plan and prepare for radiological events. EP provides a point of contact to address the effects of such events on agriculture including embargo of contaminated food, on-farm sheltering of feed, water, and livestock, and decontamination and sheltering of evacuated pets. In addition to these monthly meetings, EP staff served as agricultural subject matter experts for three nuclear power plant exercises during 2014 and, as such, conducted and participated in training events in advance of the one evacuation and two Hostile Action Based Exercises this year. Examples of these trainings include radiation basics and radiation sampling and impacts of such events on agriculture and food production and the economy of counties.

SPECIAL PROJECTS

38. NC Foreign Animal Disease and Zoo Coordination Project: The purpose of this project, funded by USDA APHIS Animal Care, is to plan for an appropriate response to a FAD outbreak, such as avian influenza, involving unique captive avian collections in North Carolina, especially those that are open to the public, and to incorporate these collections into the NC Response and Containment Plan for Highly Pathogenic and Low Pathogenic Avian Influenza as an Annex. EP staff facilitated several planning meetings incorporating other partners (USDA APHIS VS, NCSU CVM, and NCDA&CS Veterinary Division) and held individual meetings with key "special avian collections" stakeholders to gather input on major concerns to be addressed in the annex. In June 2014, the project team conducted a workshop hosting key special avian collections stakeholders, state and federal agriculture and animal health officials, state and local emergency management officials, and state and local public health officials to discuss AI response in special avian collections using an outbreak scenario. The team drafted the Annex and outreach/education materials including a brochure and a PowerPoint presentation and submitted a final summary to USDA.

39. Animal Disease Outbreak Emergency Response Logistical Infrastructure – North Carolina Region: The purpose of the project is to determine whether or not animal carcasses could be safely transported during a Foreign Animal Disease outbreak and to determine whether rendering facilities and landfills could be utilized as safe biosecure disposal options.

In April 2013, a workshop was hosted by the Animal Disease Outbreak Emergency Response Logistical Infrastructure – North Carolina Region cooperative agreement in Des Moines, Iowa and hosted five other states that have large swine and dairy industries. The workshop incorporated all viewpoints on disposal of infected carcasses to include transport, rendering and land filling as well as gain a national perspective. Follow-up webinars were conducted to attain consensus of the items discussed during the meeting. EP staff continue to develop a white paper to discuss all of the pertinent information for the project. The project was presented at the EPA Decontamination Research and Development Conference held at RTP during November 2013. EP staff have developed a tool to be utilized during an outbreak; this tool is known as the disposal calculator and started as an excel spreadsheet. It has since become a web-based application that allows users to input data regarding number of animals to be disposed, location of the premise and location of the disposal site. The calculator then computes the amount of weight in need of disposal along with routing to the disposal facility, number of conveyances required and how many days to dispose of the material. This tool is being demonstrated in a variety of venues, one of which is an exercise with partners from Florida's Department of Agriculture.

Work continued from 2013 on the project in order to understand the implications of moving infected carcasses either intrastate or interstate. EP staff were invited to attend a workshop in February 2014 in Florida to participate in a large animal disposal event and to showcase the disposal calculator that has been developed through the grant.

In May of 2014, EP staff held a carcass disposal workshop in Raleigh/Durham that hosted people from different parts of the state and other states as well. This workshop looked primarily at burial issues and some of the ramifications of burial in high-water table areas. As work continued, the white paper came to a close after vetting it through people inside the department. A white paper that had been started was completed and submitted to USDA APHIS in preparation for a national

workshop and grant completion. EP Staff along with several others around the country (workshop planning committee) started work to host a national workshop in Missouri in 2015 to deliver the findings of the project and to showcase the disposal calculator. The grant was ultimately extended in order to facilitate the national workshop and to prepare a comprehensive final report to be finalized by December 2015.

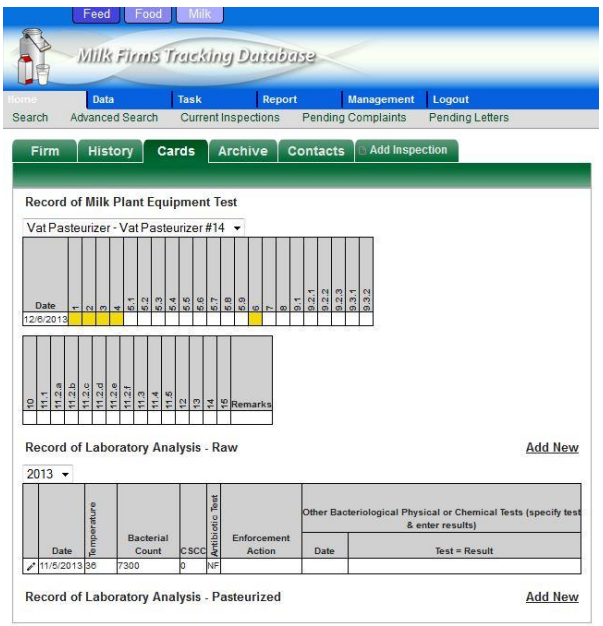
40. Foam Depopulation: EP continues its role in the evaluation of effective foam depopulation using medium expansion foam. Training was conducted April 1-3, 2014 which hosted 3D contractors supplied by the National Veterinary Stockpile (NVS). These contractors were trained by Veterinary and Emergency Programs staff on North Carolina's AI plan and how to utilize NC foam equipment. A standard operating guide (booklet) was developed that was given to each of the contractors as an instruction manual on proper use of the equipment. EP works closely with the Vet division in order to maintain the equipment and to further advance foam technology. Another training is scheduled for early 2015 in order to host NVS 3D contractors again.

41. State Homeland Security Grant Planning: The purpose of the State Homeland Security Strategy is to provide strategic direction for the State of North Carolina and its jurisdictions to prepare for, prevent, respond to, mitigate, and recover from, a catastrophic event, either natural or man-made. This is especially important for two distinct reasons: 1) the high frequency of natural disasters that occur in North Carolina and 2) the potential for future acts of terrorism. EP has maintained a Food and Agriculture Sector presence in the writing and priority setting for the SHSS. Emergency Programs has helped secure more than $5 million dollars from State Homeland Security to build preparedness and response capabilities in the Food and Ag Sector and improved visual security at the NC State Fair and the Mountain State Fair.

42. National Incident Management Compliance Assistance Support Tool: EP ensured NCDA&CS' 2014 participation in the state and national effort to comply with all Homeland Security presidential directives through submittal of specific training and exercise information and data to the NIMSCAST process. The NIMSCAST information is updated at least quarterly for NCDA&CS and for exercises following after action review processes. This web-based self-assessment instrument for state, territorial, tribal, and local governments is used to evaluate and report their jurisdictions' achievements of all NIMS implementation activities released since 2004.

TECHNOLOGY

43. Enhancements to the GRID Implementation for Food & Drug: Food Firms, Feed Firms, and Milk Firms, collectively referred to as the Firms Database, are web-based data management applications used by the sections of the Food & Drug Protection Division to track and assign regulatory inspections. The applications track manufacturers, distributors, wholesalers, and retailers operating in North Carolina and contain tools to manage inspections that keep



our food supply safe for both humans and animals.

Prior to 2014, each program existed as a stand-alone dataset. With the roll out of this latest iteration of the Firms Database, a combined database breaks down the silos between Food, Feed, and Grade "A" Milk to allow for better data sharing between regulatory programs. With an upgraded file attachment system, this also represents the next step towards reducing paper record keeping for the division. This has already been seen within the Grade "A" Milk Program, where inspection reports are electronically submitted. A document reduction project for Food is expected to kick off in January of 2015. The rollout also extended from the Inspectors' Daily Logs, already being used by Food to track field activities and assist with balancing workloads, to the Feed and Grade "A" Milk Programs.

Further enhancements made in 2014 add a new Establishment Inspection Report (EIR) capability to Food Firms. This completely revamps the inspection reports being done for manufacturer and warehouse inspections fully integrating them with Food Firms and partially automating the process. The new format will also standardize reports, resulting in greater consistency between inspectors. EIR functionality was completed during 2014, with collaboration between EP, FDPD, and FDA to vet the new questions and format, and it is expected to be piloted early in 2015 before being released.

44. Integrated Food and Agriculture Resource Management, Damage Assessment Module: The damage assessment module included in IFARM is used to collect information and images for damage caused by high winds, flooding, and other disasters. Successfully used for tracking damage to food establishments, in 2014 EP and the Soil & Water Conservation Division worked to enhance this module to make it useful for the sites, such as grain elevators and animal production facilities visited by Soil & Water Conservation Districts during an incident.

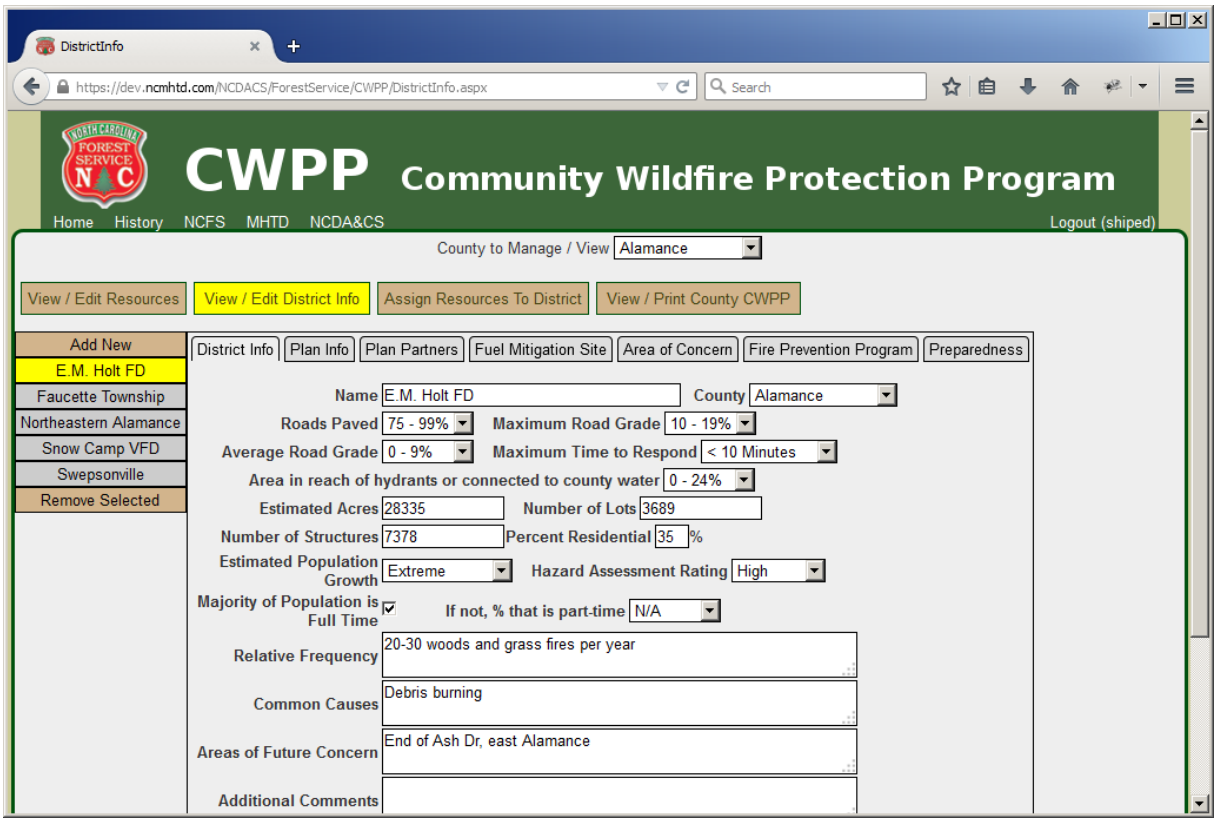
45. Biomass Disposal Calculator: The disposal calculator is a set of tools for managing the logistics and planning of the disposal of diseased animal carcasses. Initial screens are designed to find the premise location and determine the type and amount of biomass to be disposed. The disposal options screen is designed for holistically allocating landfills, renderers and burial sites until all biomass can be disposed in a sufficiently small time window. The logistics screen is designed for allocating vehicles for the transport of biomass from the premise location to the specified disposal options. It is currently still in development.

46. Collected Statewide GIS Datasets for Parcel Ownership: In 2014 ISS collected parcel data for over 90 counties and standardized the attributes to create one statewide GIS dataset. This project represents approximately 120 man hours. By combining this 2014 dataset with data from prior years we can identify the land owner for any parcel of land in the state. This dataset also contains basic information like mailing addresses and parcel's assessed values. This dataset is used for a variety of projects including the preharvest planning tool. This dataset is also shared with several other state agencies including Emergence Management, State Property, Department of Commerce, and several users at DENR. Next year we are going to partner with CGIA to contribute to their seamless parcel effort.

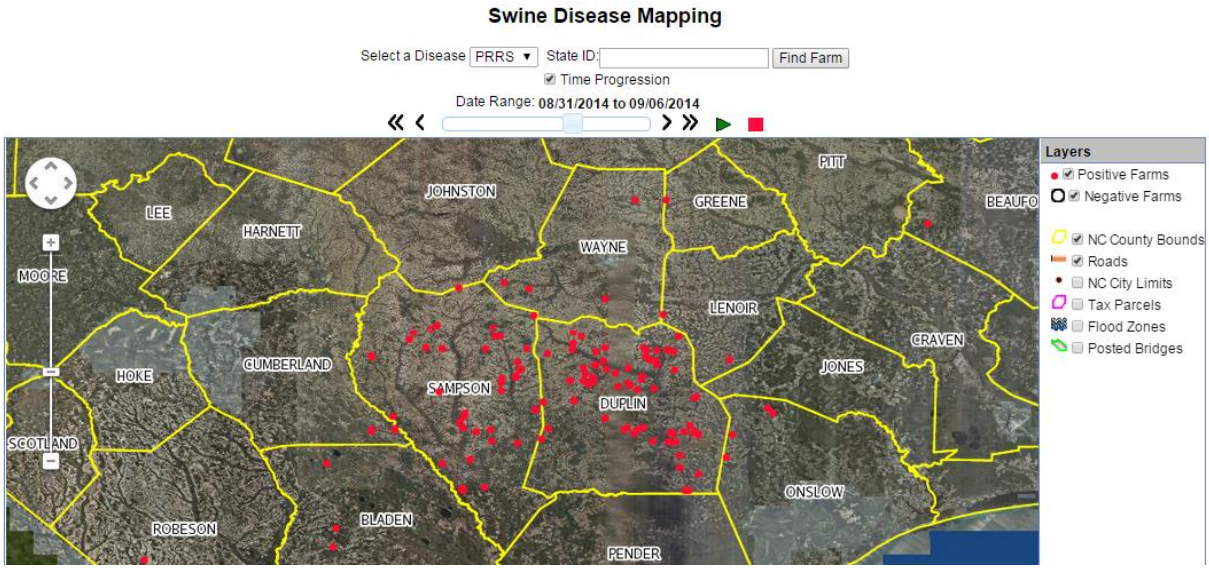
47. Georeferencing datasets in the Multi-Hazard Threat Database: One of the major objectives of the Multi-Hazard Threat Database (MHTD) is to have accurate latitude and longitude coordinates for all facilities in data bases stored in the MHTD. In 2014 our GIS quality control data technician spent approximately 340 hours doing quality control to get coordinates accurate to the parcel level for our facilities. MHTD datasets that were quality controlled this year included: Poultry Slaughter plants, USDA slaughter plants, Public Health's National Stockpile sites and points of distribution, Medical Clinics, and County Extension Office locations.

Accurate coordinates mean we can map these facilities during events like hurricanes or winter storms and can ensure our response is well targeted.

48. Community Wildfire Protection Program (CWPP) Database Conversion: The NC Forest Service's CWPP databases were migrated to a unified web-based solution using MS SQL Server. Previously NCFS had more than 90 disparate Access databases maintained at the county level. All of that data is now combined in a single database, accessible from anywhere with an Internet connection, and the many duplicated and orphaned records have been eliminated. In the new system, user input is now validated and custom controls implemented to help assure data accuracy. This web-based system uses NCID for authentication and allows fine grained user authorization to accommodate multiple roles. CWPP was pushed to the testing environment in December, and it should be fully live before the end of January 2015.



49. AHP Swine Disease Mapping Project: The Swine disease mapping tool was further enhanced to allow time range disease progression. Controls were developed and added to the tool to allow user to view positive cases on a week-by-week basis. Users can advance or go back by week. Additionally, users can animate the progress, and the tool will progress itself show one week every 2 seconds.



50. State Fair: To help with planning on accurate location and maximizing available spaces on the fairgrounds, map booklets were created for the organizers of the fair. These map booklets had the location of all vendors at the fair as well as their appropriate dimensions. A separate map booklet was also created for inspection purposes. This booklet was color coded based on the vendors products and this made it easier to interpret what department (either Food and Drug or Wake County) had to inspect a certain vendor. Rides data for the fair was received and added to the database in addition to the vendor's data. These data were modified and presented in geographical format. This was used to create the Food and Ride Finder app for fair-goers.

51. NCOEMS/DHHS: Maintenance of the master facility services website by ongoing geocoding and updates of the master facility files data. Some of these facilities had inaccurate location coordinates which was corrected to their right location to ensure geographical accuracy which is important when mapping or navigating to these facilitates. Other layers associated with this web service were reviewed and enhanced where necessary. Updates were made to the nuclear plants and EPZ layers as well as the web service.

Geospatial analysis was done to determine the master facilities that were potentially affected by tropical storm Arthur. A map and a list of these locations were created using a 48 and 24 hours out timeframe.

Different map requests for various planning purposes were also created for DHHS employees. Most of the maps were for adult-care home locations and data for these maps in some cases were geocoded.

52. Hardware Virtualization: Emergency Programs' ISS hardware infrastructure that hosts the Multi-Hazard Threat Database is now maintained by the Information Technology Services

Division (ITSD). Two goals in 2014 were to virtualize physical hardware and modernize our back routine. Our prior backup methodology was disc to tape which is slow and cumbersome to restore. Now our back routine is "disc-to-disc" and we can restore large databases in a matter of minutes. We finished virtualizing all of our servers in 2014. We now have an industry standard backup and restore procedure in place. The next step for our IT system is to setup, configure, and test our redundancy.

EQUIPMENT

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53. Foreign Animal Disease Quarantine Rapid Deployment Equipment: EP staff members continue to maintain this equipment to a state of readiness for deployment in the event of an animal disease outbreak or events caused by natural disaster.

54. Maintain, Repair, and Upgrade Department Equipment: Preventive maintenance and repairs were made on the following equipment: 7 foam pumps, 9 generators, 2 high pressure decontamination washers and trailers, 1 road tractor, 1 mobile command center, 3 heavy duty pick-up trucks, 3 sports utility vehicles, 1 cargo van, and 1 water transfer unit including pump and associated equipment. Based on age and use, much of the equipment required moderate maintenance and service, including battery replacement, charger upgrade, tire repair or replacement, oil changes, and hardware additions.

55. Response Supplies and Equipment: EP ensured procurement, storage, inventory, and maintenance of critical response supplies and personal protective equipment. The EP Division coordinates with other divisions to identify and quantify material and equipment needs. EP staff placed material and equipment in appropriate response trailers, storage rooms, or warehouses throughout the state and provided specific materials and equipment upon request of departmental employees. Shelf life will be an issue in the next few years that will have to be addressed by finding funds for significant inventory replacement.

56. Voice Interoperability Plan for Emergency Responders Radio System: In the ongoing transition to Program 25 (P25), the 800 Mhz radio fleet (229 units) has been upgraded to accept the P25 shadow programming and all radios in the agency fleet have been loaded with necessary control channels to accommodate FCC mandated narrow banding of the system. Significant time has been spent working with the NC Forest Service to determine and build template architecture to assure complete interoperability with all divisions in NCDA&CS and other agencies throughout the state. Each division of the Forest Service has unique needs in communication due to the close interaction with the counties within the divisions. Thirty-five talkgroups were added for the NCFS to help meet these needs. The initiative includes specific programming related to the law enforcement activities with the Forest Service and Special Police at the N.C. State Fairgrounds to ensure reliable communications during large events such as the State Fair and NASDA to enhance the safety of the public, officers involved and visiting participants from throughout the United States and abroad. On several occasions selected radio templates have been tailored to specific events on short notice. This also included training on unit operations for individuals who do not normally use this equipment. We are currently entering the final phase of P25 and are working to have prepared templates that can be quickly loaded to the radios when the P25 system goes live. Properly executed this will provide a robust system well into the foreseeable future.

57. Interdivisional Support: EP staff supported other agencies and divisions by supplying equipment in the form of generators for the Got 2 Be NC Festival and continued work in the promotion of disposal and decontamination technology in conjunction with the USDA, EPA, and DHS.

Glossary of Acronyms

AAR: After Action Review
AERT: Agricultural Emergency Response Team
AgEOC: Agriculture Emergency Operations Center
AHA: American Humane Association
AHIMT: All Hazards Incident Management Team
AHP: Animal Health Programs
AI: Avian Influenza
AVMA: American Veterinary Medical Association
CAMET: Companion Animal Mobile Equipment Trailer
CART: County Animal Response Team
CBRNE: Chemical, Biological, Radiological, Nuclear, and Explosive Task Force
CE: Continuing Education
CIKR: Critical Infrastructure and Key Resources
CLU: Common Land Units
CRI: City Readiness Initiative
CWPP: Community Wildfire Protection Program
DENR: Department of Environment and Natural Resources
DHHS: Department of Health and Human Services
DHS: Department of Homeland Security
DPH: Division of Public Health
EM: Emergency Management
EMAC: Emergency Management Assistance Compact
EMS: Emergency Medical Services
EOC: Emergency Operations Center
EOP: Emergency Operation Plan
EP: Emergency Programs
EPA: Environmental Protection Agency
EPZ: Exposure Pathway Zone
ESF: Emergency Support Function
F&D: Food and Drug Division
FAD: Foreign Animal Disease
FADD: Foreign Animal Disease Diagnosticians
FASCAT: Food and Agriculture Sector Criticality Assessment Tool
FDA: US Food and Drug Administration
FDPD: Food and Drug Protection Division
FSDTF: NC Food Safety and Defense Task Force

FEMA: Federal Emergency Management Agency
FMD: Foot and Mouth Disease
FRMAC: Federal Radiological Monitoring and Assessment Center
FSA: Farm Service Agency
GAO: Government Accountability Office
GCC: Government Coordination Council
GIS: Geographic Information System
GPS: Global Positioning System
GRID: Generic Regulatory and Inspections Database
HSPD: Homeland Security Presidential Directives
Hurrevac: Hurricane Evacuation Software Program
IAP: Incident Action Plan
ICS: Incident Command System
IFARM: Integrated Food and Agriculture Resource Management
IIT WG: Interactive Information Technology Workgroup
IMT: Incident Management Team
IPZ: Ingestion Pathway Zone
ISAAC: Information Sharing and Analysis Center
ISS: Information Support Services
KMZ: Keyhole Markup Language Zipped
LP: Liquefied Propane
MCTFR: Military-Civilian Task Force for Emergency Response
MHTD: Multi-Hazard Threat Database
MHz: Megahertz
MOA: Memorandum of Agreement
MOU: Memorandum of Understanding
MPID: Meat and Poultry Inspection Division
MS: Microsoft
NARSC: National Animal Rescue and Sheltering Coalition
NASAAEP: National Alliance of State Animal and Agricultural Emergency Programs
NBIC: National Biosurveillance Integration Center
NC ARCA: NC Animal Rabies Control Association
NCDA&CS: North Carolina Department of Agriculture and Consumer Services
NC DENR: North Carolina Department of Environment and Natural Resources
NC DHHS: North Carolina Department of Health and Human Services
NC DOT: NC Department of Transportation
NC DPH: North Carolina Division of Public Health
NC EDPHA: North Carolina Eastern District Public Health Association Conference
NC EM: North Carolina Division of Emergency Management
NC EOP: North Carolina Emergency Operations Plan
NC FDEM: North Carolina Food Defense Event Management
NCFS: North Carolina Forest Services

NC OEMS: North Carolina Office of Emergency Medical Services
NC PHP&R: North Carolina Public Health Preparedness and Response
NCSU CALS: North Carolina State University College of Agricultural and Life Sciences
NCSU CES: NC State University Cooperative Extension Service
NCSU CVM: North Carolina State University College of Veterinary Medicine
NCSU OPD: North Carolina State University Office of Professional Development
NCVC: North Carolina Veterinary Conference
NCVRC: NC Veterinary Response Corps
NC WRC: NC Wildlife Resource Commission
NEMA: National Emergency Managers Association
NGO: Non-governmental Organization
NIMS: National Incident Management System
NIMSCAST: National Incident Management Compliance Assistance Support Tool
NRC: Nuclear Regulatory Commission
NVS: National Veterinary Stockpile
NVSL: National Veterinary Services Laboratories
OEMS: Office of Emergency Medical Services
PC: Preparedness Coordinator
PAPR: Powered Air-Purifying Respirator
PED: Porcine Epidemic Diarrhea
PFP: Partnership for Food Protection
PH: Public Health
PHP&R: Public Health Preparedness and Response
POC: Point of Contact
PPE: Personal protective equipment
PRRS: Porcine Reproductive and Respiratory Syndrome
RRT: Regional Response Team
RTP: Research Triangle Park
RYE: Realistic Yield Estimate
SAADRA: Southern Agriculture and Animal Disaster Response Alliance
SART: State Agricultural Response Team
SASDA: Southern Association of States Departments of Agriculture
SERC: State Emergency Response Commission
SERT: State Emergency Response Team
SERVNC: Statewide Volunteer Database Management System
SHSS: State Homeland Security Strategy
SMSS: State Medical Support Sheltering
SME: Subject Matter Expert
UNC: University of North Carolina
USDA: United States Department of Agriculture
VIPER: Voice Interoperability Plan for Emergency Responders
VOAD: Volunteer Organizations Active in Disasters

VTTX: Virtual Table Top Exercises
WebEOC: Web Based Emergency Operations Center